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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/517,300  | 12/07/2004  | Guido Noselli        | 71635               | 4715             |
| 23872   | 7590        | 09/19/2006           | EXAMINER            |                  |
| MCGLEW & TUTTLE, PC<br>P.O. BOX 9227<br>SCARBOROUGH STATION<br>SCARBOROUGH, NY 10510-9227 |             |                      | LUKS, JEREMY AUSTIN |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2837                |                  |

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/517,300             | NOSELLI ET AL.      |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Jeremy Luks            | 2837                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/7/04</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Objections***

1. The word "loudspeaker" is misspelled in title of this application. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Pineau (5,553,147) in view of Kasai (5,067,159). Pineau teaches a low frequency loudspeaker enclosure (Figure 8, #51), characterized by the fact that it includes at least one pair of loudspeakers (Figure 4, #30, 31) mounted in the same box (Figure 8 – see speaker box), facing the opposite directions (Col. 7, Lines 33-36) in which a first loudspeaker (Figure 4, #30) faces towards the front and a second loudspeaker (31) towards the rear, in order to send the sound in the opposite directions, said loudspeakers (30, 31) being identical or different from one another and driven by amplification circuits (Figure 4), each including an electronic delay circuit (Col. 10, Lines

27-34), and having signals coming from a single source (See figure 4) but having different amplitude and phase (Col. 10, Lines 27-34); wherein the enclosure can be placed alongside or stacked on other enclosures to form vertical arrays, or coupled and installed one above the other in multiples to form groups operating in a "piston band" set-up (Figures 8-11). Pineau fails to teach wherein each speaker is powered as separate elements. Kasai teaches individual speaker (Figure 8, #106, 107) powered by separate elements (103, 104). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Pineau, with the apparatus of Kasai to provide better control of the system's amplitude.

3. Claims 3-5, 7-9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pineau (5,553,147) in view of Kasai (5,067,159) as applied to claims 1 and 2 above, and further in view of Lyngdorf (4,783,820). Pineau and Kasai are relied upon for the reasons and disclosures set forth above. Pineau further teaches the use of at least a pair of loudspeakers (Figure 4, #30, 31), mounted in the same box (Figure 8, #51), facing in opposite directions compared to the sound emission (see Figures 4, 8), said loudspeakers (30, 31) being identical or different from one another and driven by amplification circuits (Figure 4), each including an electronic delay circuit (Col. 10, Lines 27-34), and having signals coming from a single source (See figure 4) but having different amplitude and phase (Col. 10, Lines 27-34). Pineau fails to teach powering of the aforementioned loudspeakers as separate elements; wherein two open conduits are provided on at least two sides of the front loudspeaker, and in which the rear loudspeaker faces on to a chamber having two side openings; wherein said conduits

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and/or side apertures have variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures on the front and/or apertures positioned at the rear, in order to obtain different dispersion patterns. Kasai teaches individual speaker (Figure 8, #106, 107) powered by separate elements (103, 104). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Pineau, with the apparatus of Kasai to provide better control of the system's amplitude. Kasai fails to teach wherein two open conduits are provided on at least two sides of the front loudspeaker, and in which the rear loudspeaker faces on to a chamber having two side openings; wherein said conduits and/or side apertures have variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures on the front and/or apertures positioned at the rear, in order to obtain different dispersion patterns. Lyngdorf teaches two open conduits are provided on at least two sides of the front loudspeaker (See Figure 8), and wherein the rear loudspeaker (Figure 13, bottom speaker) faces on to a chamber having a side opening. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Pineau as modified, with the apparatus of Lyngdorf to function as an effective bass reflection system. Lyngdorf wherein said conduits and/or side apertures have variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the

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enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures on the front and/or apertures positioned at the rear, in order to obtain different dispersion patterns. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide conduits and/or side apertures having variable dimensions to modify the system's acoustic parameters; and the possibility of varying the reciprocal entity of the enclosure's acoustic parameters, modifying the load volume of the loudspeaker and/or dimensions of the conduits/apertures, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233. Further, it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954). Lyngdorf also fails to teach a chamber having two side openings. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have two side openings, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent arts of record relating to low frequency loudspeaker enclosures with configurable directivity are disclosed in the PTO-892.

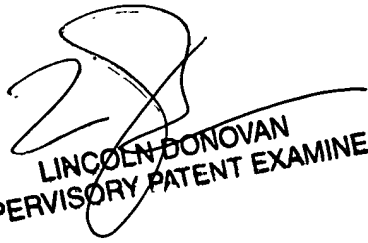
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-

2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
Patent Examiner  
Art Unit 2837

  
LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER